IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Robert D. Nuckolls, Rabin A. Sugumar and Chandra M.R. Thimmannagari

Title: EFFICIENT BRANCH PREDICTION STRUCTURE

Application No.: 10/660,169

Filed: September 11, 2003

Examiner: Not Yet Assigned

Group Art Unit: Not Yet Assigned

Atty. Docket No.: 004-9236

September 30, 2003

COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. § 1.97**

Dear Sir:

Pursuant to 37 C.F.R. § 1.56, § 1.97 and § 1.98, the undersigned brings the patents, publications, applications or other information identified in the attached:

- ☒ Form(s) PTO-1449  
☐ Other: n/a

to the Examiner's attention in the above-identified application. Citation of such information shall not be construed as:

1. an admission that the information necessarily is, or corresponds to, prior art with respect to the instant invention;
2. a representation that a search has been made, other than as described below; or
3. an admission that the information cited herein is, or is considered to be, material to patentability as defined in § 1.56(b).

For each item of information listed that is not in the English language, the undersigned has provided a concise explanation of the relevance through (i) an English language abstract, (ii) an English language equivalent application, or (iii) if cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action that indicates the degree of relevance found by the foreign office.

FEE AUTHORIZATION

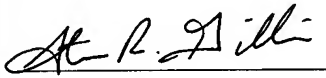
- ☒ This Information Disclosure Statement is filed within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) or within three months of entry of the national stage as set forth in § 1.491 in an international application. Therefore, no fee is required.
- ☐ The undersigned believes that this Information Disclosure Statement is being filed before the mailing date of a first Office action on the merits or before the mailing date of a first Office action after the filing of a request for continued examination under § 1.114. Therefore, no fee is believed required.

If however, this Information Disclosure Statement is filed after the period specified in § 1.97(b), the undersigned hereby authorizes the Commissioner to charge the fee set forth in § 1.17(p) to Deposit Account No. 50-0631.

**CERTIFICATE OF MAILING OR TRANSMISSION**

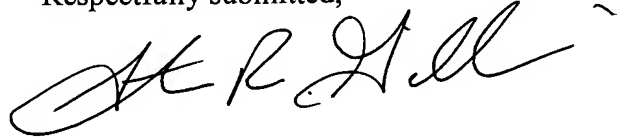
I hereby certify that, on the date shown below, this correspondence is being

- ☒ deposited with the US Postal Service with sufficient postage as first class mail, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.
- ☐ facsimile transmitted to the US Patent and Trademark Office.

9/30/2003

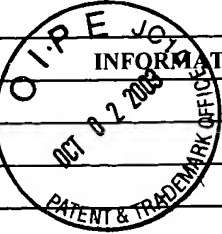
Date

Respectfully submitted,



Steven R. Gilliam, Reg. No. 51,734  
Attorney for Applicant(s)  
(512) 347-9030  
(512) 347-9031 (fax)

EXPRESS MAIL LABEL: \_\_\_\_\_

U.S. Department of Commerce, Patent and Trademark Office		Attorney Docket No.: 004-9236
		Application No.: 10/660,169
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		Applicant(s): Robert D. Nuckolls, et al.
(Use several sheets if necessary)		Filing Date: 09-11-2003
		Group Art Unit: Not Yet Assigned
		Date Submitted: September 30, 2003
NON PATENT LITERATURE DOCUMENTS		
*Examiner Initial	Cite No.	(Including name of author in capital letters, title of article, title of item, date, pertinent pages, volume-issue number(s), publisher, city and/or country where published.)
	AA	HENNESSY, JOHN L. & PATTERSON, DAVID A., "Computer Architecture: A Quantitative Approach," Third Edition, 2003, Morgan Kaufmann Publishers, San Francisco, CA, pp. 196-215.
	AB	SMITH, JAMES E., "A Study of Branch Prediction Strategies," Proc. Computer Architecture, 1981, pp. 135-148.
	AC	YEH, T. & PATT, YALE N., "A Comparison of Dynamic Branch Predictors that use Two Levels of Branch History," Proceedings of the 20 <sup>th</sup> Annual International Symposium on Computer Architecture (ISCA 20), 1993, pp. 257-266.
	AD	HILGENDORF, R. B., HEIM, G. J., ROSENSTIEL, W., "Evaluation of Branch-Prediction Methods on Traces from Commercial Applications," IBM J. Res. Develop., Vol. 43, No. 4, July 1999, pp. 579-593; <a href="http://www.research.ibm.com/journal/rd/434/hilgendorf.html">http://www.research.ibm.com/journal/rd/434/hilgendorf.html</a> .
	AE	LEBECK, ALVIN R., "Lecture 7: Dynamic Branch Prediction, Superscalar, VLIW, and Software Pipelining," Computer Science 220, Fall 2001, pp. 1-22 (Slides 1-43); <a href="http://www.cs.duke.edu/education/courses/fall01/cps220/lectures/lect07-2up.pdf">http://www.cs.duke.edu/education/courses/fall01/cps220/lectures/lect07-2up.pdf</a> .
	AF	
	AG	
	AH	
	AI	
	AJ	
	AK	
	AL	
	AM	
	AN	
	AO	
	AP	
	AQ	
Examiner		Date Considered
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with your communication to applicant.</p>		